

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

CWSF-30

Effective October 1, 2013

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **September 2015**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Aluminum Thermally Broken Hurricane Outswing Bi-Fold Door Panels, Impact Resistant,
manufactured by

La Cantina Doors
3817 Ocean Ranch Blvd., Suite 114
Oceanside, CA 92056
Telephone: (760) 734-1590

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions, this product evaluation report, and the design drawings referenced in this evaluation report.

PRODUCT DESCRIPTION

The Aluminum Thermally Broken Hurricane Outswing Bi-Fold door panels are aluminum folding glass door panels. The aluminum folding glass door panels evaluated in this report are impact resistant glass doors. This evaluation report is for aluminum folding glass door panels based on the following tested constructions:

General Description:

System	Description	Label Rating
1	Aluminum Thermally Broken Hurricane Outswing Bi-Fold Door Panels 0L4R; XXXX	TAS-201, TAS-202, TAS-203 Design Pressure: +70/-70 psf Maximum Size Tested: 147 $\frac{5}{8}$ " x 99 $\frac{7}{8}$ "
2	Aluminum Thermally Broken Hurricane Outswing Bi-Fold Door Panels 2L4R; XXXXXX	TAS-201, TAS-202, TAS-203 Design Pressure: +46.7/-60 psf Maximum Size Tested: 220 $\frac{1}{8}$ " x 99 $\frac{7}{8}$ "
3	Aluminum Thermally Broken Hurricane Outswing Bi-Fold Door Panels 3L3R; XXXXXX	TAS-201, TAS-202, TAS-203 Design Pressure: +70/-70 psf Maximum Size Tested: 220 $\frac{1}{8}$ " x 99 $\frac{7}{8}$ "

Product Dimensions:

System	Overall Size	Panel Size	Panel Daylight Opening Size
1	147 $\frac{5}{8}$ " x 99 $\frac{7}{8}$ "	Four: 36 $\frac{3}{16}$ " x 96"	Four: 30 $\frac{3}{16}$ " x 90"
2	220 $\frac{1}{8}$ " x 99 $\frac{7}{8}$ "	Six: 36 $\frac{3}{16}$ " x 96"	Six: 30 $\frac{3}{16}$ " x 90"
3	220 $\frac{1}{8}$ " x 99 $\frac{7}{8}$ "	Six: 36 $\frac{3}{16}$ " x 96"	Six: 30 $\frac{3}{16}$ " x 90"

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1-3	IG-1 or SG-1	GM-1

Note: ¹ See the "Glass Construction Key" for the glazing construction.

² See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

SG-1: The panels contain laminated glass units. The laminated glass units consist of two 4.7 mm heat strengthened glass lites with 0.090" SentryGlas®Plus interlayer. The glass thickness used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-1: The panels contain sealed insulating glass units. The sealed insulating glass units are comprised of a 3.9mm fully tempered glass lite and a laminated glass unit separated by an aluminum spacer system. The laminated glass units consist of two 4.7 mm heat strengthened glass lites with 0.090" SentryGlas®Plus interlayer. The glass thickness used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The glass units are glazed with Dow Corning 995 structural silicone.

Frame Construction: The frame members consist of extruded aluminum. A thermally broken fiberglass reinforced plastic core has snap-in covers attached to the interior and exterior. The frame corners are secured together with screws.

Panel Construction: The panel members consist of extruded aluminum. A thermally broken fiberglass reinforced plastic core has snap-in covers attached to the interior and exterior. The panel corners are secured together with screws.

Hardware:

Description	Quantity	Location
Pivot hinge	4	See location and manufacturer of hardware components on approved drawings.
Offset hinge set	5	
Roller guide	1	
Shoot bolt	2	
Latch and dead bolt	1	

Reinforcement: None.

Product Identification: A certification program label (NAMI) will be affixed to the assembly. The certification program label shall include the manufacturer's name; the product name: **Aluminum Thermally Broken Hurricane Outswing Bi-Fold Door Panels**; performance characteristics; the approved inspection agency (NAMI); and the applicable standards: TAS-201, TAS-202, TAS-203.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	147 $\frac{5}{8}$	99 $\frac{7}{8}$	+70/-70
2	220 $\frac{1}{8}$	99 $\frac{7}{8}$	+46.7/-60
3	220 $\frac{1}{8}$	99 $\frac{7}{8}$	+70/-70

Impact Resistance: These assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I** and the **Seaward zone**. The assemblies passed an impact test standard equivalent to Missile Level D specified in ASTM E 1996-02/06. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These assemblies will not need to be protected with an impact protective system.

Acceptance of Smaller Assemblies: Assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The assembly shall be installed in accordance with the manufacturer's installation instructions and this product evaluation. Detailed drawings and installation instructions are available from the manufacturer.

Design Drawings:

System 1-3: The glass door panels shall be installed in accordance with Drawing No. 08-01610, titled "La Cantina Doors Outswing Bi-Fold Door Aluminum Thermally Broken Hurricane Panels", sheets 1 of 12 – 12, dated December 12, 2011, signed and sealed by Luis R. Lomas., P.E on May 2, 2012. The stated drawings will be referred to as the approved drawings in this evaluation report.

Wall Framing Construction: The glass door panels may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- Concrete (minimum compressive strength: 3,192 psi)
- Wood dimension lumber (minimum Spruce-Pine-Fir)
- Masonry – (ASTM C-90, Grade N, Type 1 or greater)
- Metal – 18 gauge steel, 33 ksi or aluminum 6063-T5, $\frac{1}{8}$ " thick minimum

Installation:

- Refer to Sheet 1 of 12 of the approved drawings for the anchor layout and fastener requirement notes.
- Refer to the approved drawings for installation details.
- The approved drawings indicate the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.